



The GEMS global re-analysis of Carbon Monoxide for the period 2003-2008

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A major achievement of the GEMS project is the global re-analysis of atmospheric composition for the period 2003-2008. We will show the inter-annual variability of the CO re-analysis at the continental scale. In particular, the variability introduced by biomass burning will be investigated by comparison with wild fire emission data and meteorological anomalies. We further show how the CO analyses compare against aircraft observations from the MOZAIC project from the whole re-analysis period. The CO re-analysis has been produced by the assimilation of observations from the MOPITT instrument in to the integrated forecast system (IFS) of ECMWF. For reactive gases such as CO, the IFS used the MOZART-3 chemical transport model for the representation of the source and sink processes.